THE BRIGHTON SURVEYORSHIP.

At a recent meeting of the Brighton Commissioners, the committee appointed to examine the testimonials of candidates for the office of surveyor, brought up their report. From this it appeared that testimonials had been received from the following gentlemen:—

Allen Anscombe, Brighton; William Assiter, Maidstone; Thomas Baylis, Ledbury; William Caveler, Margate; J. W. Cole, Coventry; John Dallimore, Brighton; John S. Erlam, London; Geo. H. Fenwick, Kennington; Charles Geoghegan, London; Thomas Y. Littlewood, Thornton Heath; Joseph Henry Spicer, London; John Stead, London; Thomas Wilson, Odiham; and R. W. Wright, Bristol.

The committee, after examination, reduced the list to seven, viz., Messrs. Anscombe, Baylis, Caveler, Dallimore, Spicer, Stead, and Wright; and ultimately recommended the commissioners to appoint Mr. Stead. After much discussion, the commissioners proceeded to the election, and Mr. Stead was chosen. The numbers were:—For Mr. Stead, 46; Mr. Dallimore, 30; Mr. Anscombe, 9.

VENTILATION OF MINES—GOVERNMENT INTERFERENCE.

INSTITUTION OF CIVIL ENGINEERS.

At a meeting on the 16th inst., the paper read was by Mr. Joshua Richardson, "On the ventilation of mines." After stating the necessity for establishing a more complete system of ventilation as a measure of common humanity, and the advantageous results in a commercial view which would arise from enabling the miners to develope their physical force with more benefit to themselves, and allow them to do a greater amount of task-work for the same sum, the paper proceeded to describe the system of ventilation at present pursued in Newcastle and its vicinity as being that of the district where the greatest attention had from necessity been paid to the subject, which is one of undoubted difficulty: it is at the same time one of almost national importance, for as a mercantile nation much of our greatness depends upon our manufactures; and unless the fuel for producing power is obtained at a reasonable price, the results of all our attention and skill will not enable us to compete with foreign labour. Without good ventilation our mines cannot be worked, or at least must be so imperfectly conducted as to render fuel scarce and expensive. Much attention has been paid by very able men to this subject, and still the necessity becomes more apparent for some great alteration, to avoid the gradual but certain waste of human strength from long sojourn in mephitic air, or the frightful loss of life from the explosions of the gases exuding from the coal in the progress of getting.

The nature of these gases, which are the carburetted hydrogen, the olefiant, the sulphuretted hydrogen, and the carbonic acid gas, were severally treated of. The three first are known as fire-damp, being explosive when mixed with certain proportions of common air; the latter is known as choke-damp or after-damp; it is produced in large quantities by explosions, and completes the fatal work left undone by the explosive gases. It also exists in old workings and ill-ventilated mines.

These gases require a large supply of pure air to dilate and render them innocuous, and a still larger quantity is necessary to support the respiration of the number of men and animals employed in a mine. The entrance, therefore, of the fresh air and the exit of the foul air, should be free and capacious. This is generally effected by having two pits, one termed the "downcast" and the other the "upcast" shaft, sunk to the coal-bed; down the former of these the fresh air sinks, and after travelling along through the various galleries, as it is guided by doors and other means in various directions, it returns to the bottom of the latter (the upcast) shaft where a furnace is established in which it is rarified and rendered so much lighter that it readily ascends the upcast shaft; thus causing throughout the mine a current of air, which, when all succeeds according to the design of the mining engineer, affords ample ventilation in all parts. Sometimes, however, an casual escape of deleterious gas takes place by the carelessness of the boys having charge of the traps and partition-doors in the air-ways; some of them are left open or improperly kept shut, and the current of air is diverted or stopped; or one of the workmen from heedlessness or cupidity in desiring to have more light for his work, opens the safety lamp, the inflammable gas is ignited, and an explosion ensues. From one or more of these causes arose all the accidents that have occurred, and it appears that hitherto no precautious measures have sufficed to prevent their occurrence.

The paper dwelt at some length on the present methods of ventilation, and the objections to them, illustrating the positions by quotations from the best authorities on the subject; all of which went to shew that, in spite of all the care and attention that had been given to the question, all the skill of the engineers, and the introduction of the safety-lamp in 1816, the loss of life had been greater since that period than it was in a corresponding period previous to its introduction. This must not be charged entirely to the lamp; for, although it may have rendered men bolder, and induced them to trust too much to the lamp, in venturing into those parts of the mines which formerly would have been abandoned, still it must be borne in mind that, as the coal was got at greater depths and distances from the shafts the ventilation became more difficult, and from the greater number of persons employed in one mine, if an accident did occur, the loss of life was greater in proportion.

The merits of the safety-lamps produced almost simultaneously by Sir H. Davy, Mr. G. Stephenson, and Dr. Reid Clanny, were canvassed, and the greater amount of merit, as well as the credit of the first production of it, was thought to be due to Mr. Stephenson. The author then entered into calculations, shewing that the dimensions of the "upcast" shaft should, in all cases, be increased in proportion to the augmented volume of the air from the expansion at the higher temperature at which it leaves the mine after traversing all the passages; and if this were attended to, not only would the general ventilation be better, but, in the event of an accident occurring, by an explosion, or the derangement of some of the air passages from falls of the roof, &c., an extra power could be applied, which would at any rate prevent a portion of the frightful loss of human life which now occurs. It was evident from the whole statement, that although, in certain cases of fiery mines, some improvements might be advantageously introduced, yet that, in the majority of good mines, the present methods sufficed to maintain them in a healthy and safe state; and that, in almost all cases, it was the culpable neglect of, and not the want of, the means of prevention, that caused the destruction of health life and property in the mining operations of the kingdom.

In the discussion which ensued, the interference of Government by legislative enactments, with respect to methods of ventilation, was deprecated. It had become fashionable now, whenever a difficulty occurred, to recommend legislative enactments as an universal panacea, as if a committee of the House, or a body of commissioners, none of whom probably possessed any practical knowledge of the subject, could at once fall by inspiration upon the methods of prevention or cure which had so long eluded the careful investigation of scientific and practical men, whose time, talents, and fortunes had been all devoted to the subject from that great incentive to exertion, "self interest." When the example of foreign countries was quoted, it should be at the same time shewn in how backward a state they were in engineering, in mining, in commerce, and in fact, in every thing with which the Government interfered, as compared to the high state of perfection arrived at in this country. What was their position with respect to common roads, canals, railways, the extent of their mines, and the general amount of manufactures, as compared to those of England? and yet they had the "advantages" of the "wisdom" and the "fostering protection of Government;" whilst in England there was nothing but competition to urge manufacturers and miners to bring their produce to market of the best quality and at the cheapest possible rate. In short, it was asserted that, to do any good, Government must leave the matter alone.

We are not, now, offering any opinion of our own on this point, but simply reporting what was expressed by others.

NOTES IN THE PROVINCES.

H. R. H. THE PRINCE CONSORT has signified his intention of honouring Portsmouth with his presence, early in the summer, to lay the foundation-stone of the new hospital to be erected there, on land which the Board of Ordnance has liberally granted. Her Majesty the Queen has graciously bestowed her patronage on the institution.——Several mural paintings have been discovered on the south side of Easton church, Suffolk. They were concealed by accumulated coats of whitewash.——The capacious new reservoir at Kensington, Liverpool, lately opened in connection with the Green Lane Water-works, recently gave way, so as to allow the water to ooze out and escape in nearly 50 places, by the pressure of the contents forcing it through the puddling on which the brickwork is erected on the western embankment. The water, which did not nearly reach the level of the waste-pipe, was quickly turned off into the common sewer, which has had the benefit of a good cleansing, while fortunately very little damage it is thought has been done to the reservoir, although confidence in its sufficiency must have been seriously shaken. Indeed, it is believed that, had the accident not been discovered before night set in, the undermining process would have led to a very serious destruction of property, if not of life also. The fear engendered by the Harrington catastrophe cannot but be still before the eyes of the residents of Kensington and its vicinity.——The building committee of the Gateshead Mechanics' Institute lately laid before a meeting of the annual committee an elevation and plans of the proposed edifice, to be erected in West-street, which had been prepared by Messrs. Wardle and Walker, of Hood-street, Newcastle, architects. The building fund being small, no improvident expenditure will be incurred in architectural ornament, which, as the *Gateshead Observer* curtly observes, would have anything but an ornamental effect in the shape of a mortgage; but the structure will show a good and handsome front, and be a credit to the institution and the town. A general meeting of the members was to be held, in order to take the plans into consideration, and advise the building committee as to their future proceedings.——At Stirling, a Water Supply and Sewage Manure Company, with a capital of 15,000*l.*, has been projected. Although few towns command natural advantages equal to Stirling, for securing not only an abundant supply of pure water at a cheap rate, but also for the application of a proper system of sewerage, the inhabitants have long suffered from the inadequacy of the supply of water and the want of any general under-sewerage, so that the streets and open sewage channels are constantly filled with fœtid, offensive, and unwholesome matter, the effectual cleansing of which can best of all be carried out in connection with a company offering the twofold benefit of a full supply of water and a proper system of sewage, the sewage water from which will go far to pay its own way, and to benefit the agricultural vicinity by an every way profitable disposal to farmers as manure.——The grand jury of the city of Cork have adopted, as their own, the memorial for a school of design presented to them by Sir Thomas Deane. A prayer so recommended to Government, remarks the *Cork Examiner*, cannot but be successful.——It seems that the million sterling, or thereby, expended on the relief works in Ireland during the month of February was "entirely independent of the expenses incurred through the commissariat and other public departments for the same general object!" If the depth of the wretchedness of this miserable and "etiolated" country,—as it has been significantly termed by Mr. Chambers, the journalist,—may be estimated by the rapidity with which the means for its relief mount up into more and more immense accumulations of sterling money, and by the still greater rapidity with which such literal and physical loads of gold and silver are not only shovelled by wholesale into the gulph, but swallowed up and absorbed within it as if no such vain endeavour had been ever made to

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